



Sharing the environment: Environmental and cross-cultural learning for pre- and in-service teachers

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Summary

Sharing the Environment (STE), a transnational environmental education project, trains elementary teachers in inquiry-based environmental education (EE). STE was originally designed to address the problems facing teachers in the US and Trinidad as they attempted to incorporate inquiry-based learning in their respective state-mandated science curricula. STE included having students share their EE experiences via Skype and qualitative research on it has indicated growth in both cross-cultural familiarity and environmental knowledge.

The theoretic framework for this research on STE is grounded in children's innate desire to learn, the importance of social interaction in making meaning (Vygotsky, 1978; Dewey, 1916), and social discourse in conceptual understanding (Bybee et al, 2006). Connected to this is inquiry and the use of

technology (Newman, Falco, Silverman, & Barbanel, 2008) as the basis for professional development of teachers. These elements were combined into EE classroom experiences for children in both countries.

The purpose of this research was to analyze the STE project as a process of both academic and cultural exchange among groups separated by race, geography, socioeconomic status, and technical expertise. A grounded theory approach (Merriam, 1998; Corbin and Strauss, 2008) and ethnographic analysis were used to describe ways in which inquiry-based teaching and learning techniques linked to technology could enhance EE and cultural exchange. From this analysis, six themes emerged: active engagement for motivation, curriculum linkages, technological issues, collaborative structures, environmental knowledge gains, and socio-cultural knowledge gains. In both countries, the greatest success related to the ability of teachers and children to engage actively in their learning.

Because research findings of the pilot study pointed out the importance of sensitivity to cultural differences, undergraduate coursework will now include STE as a field experience. As STE expands into the university's undergraduate program, participants will glean an understanding of inquiry in EE and instructional technology as they become world citizens.

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